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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,240	08/22/2005	Martin Johansson	4127-21	4609

23117 7590 12/26/2006
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EXAMINER

LEE, BENNY T

ART UNIT	PAPER NUMBER
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2817

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/26/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/524,240

Applicant(s)

JOHANSSON ET AL.

Examiner

Benny Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 6,11-13,15,20,21,24,28-51 and 53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1; 2-5,7-10,14,16-19,22,23,25-27,52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-53 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election without traverse of Species I in the reply filed on 27 November 2006 is acknowledged.

However, after a review of the claims indicated by applicant as belonging to the elected species, the examiner has determined that the subject matter of claims 11, 12 & 15 appear to be directed to subject matter which is not associated with elected species I. Moreover, after a further review of the claims, the examiner has determined that claims 17-19 (not specified by applicant as belonging to the elected species) appear to be properly grouped with elected species I. Accordingly, claims 1-5, 7-10, 14, 16-19, 22, 23, 25-27 & 52 will be examined on the merits.

Claims 6, 11, 12, 13, 15, 20, 21, 24, 28-51, 53 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 27 November 2006.

The disclosure is objected to because of the following informalities: Note that the heading "SUMMARY" should be rephrased as --SUMMARY OF THE INVENTION-- as to be consistent with PTO guidelines. Also, in paragraphs [0005] to [0022], which makes up the "summary of the invention", note that these paragraphs should be amended such as to reflect the currently elected species (i.e. by removing those paragraphs and text which are not directed to the elected species). Note that in the description of figures 8-10 and 11-13, it has been noted that applicants' use the terminology "conventional waveguide" to describe the embodiments therein. Such terminology appears to be misleading, especially if these are embodiments of applicants' invention, since the term "conventional" is nominally recognized as meaning --prior art--.

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Clarification of this aspect of the disclosure is needed. If indeed, figures 8-10 & 11-13 are applicants' invention, perhaps instead of using the term "conventional", an alternate description such as --non-parallel plate-- could be used as an appropriate description of the waveguide in these embodiments. In paragraph [0045], note that at each occurrence of "...slanted end of the first parallel plate waveguide ... end 364" should be rephrased as --...slanted end 364 of the first parallel plate waveguide ...-- for clarity of description. In paragraph [0046], note that use of the designation of "first port" for both reference labels (491, 492) and the designation of "second port" for reference labels (495, 496) is misleading and needs clarification. Moreover, in the same paragraph, should "additional cover planes 451, 411" properly be --alternative cover planes 451, 411-- since these are planes which are used in place rather in addition to prior cover planes (410, 450)? Clarification is needed. In paragraph [0048], note that reference labels (575, 577) are both improperly used to identify the "second curved slot". Clarification is needed. Note that the following reference labels need a corresponding description with the indicated drawing figure: fig. 8B (891, 895); fig. 8C, all reference labels therein; fig. 13 (1381). Appropriate correction is required.

The drawings are objected to because of the following: In Fig. 4B, should reference labels "411" & "451" correctly be --410-- & --450--, respectively? In Figs. 8A, 8B, 8C, 9A, 9B, 10, 11, 12, 13, if these embodiments are "conventional waveguides", then should these drawing figures be labeled as --CONVENTIONAL ART--? In Fig. 9A, note that reference label --972-- needs to be provided such as to be consistent with the specification description thereof. In Fig. 9B, note that reference labels (970, 974, 979) need to be provided such as to be consistent with the specification description thereof.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Note that the specification needs to provide a corresponding description regarding the "first curved line is parabolic", such as recited in claim 14.

Claims 2-5, 7-10, 14, 16-19, 22, 23, 25-27, 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, note that "through it" should be rephrased to indicate the intended element or feature. Clarification is needed.

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In claim 10, note that reference to "the extension of the first curved side" is vague in meaning since no such "extension" has been strictly defined. Clarification is needed.

The following claims have been found to be objectionable for reasons set forth below:

In claim 1, line 6, note that "of which" should be rephrased as --of said waveguide slot-- for an appropriate characterization.

In claim 2, line 9, note that "of" should be rewritten as --at-- for consistency of description; line 10, note that "an" should be rewritten as --the-- to avoid antecedent basis problems.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-10, 14, 16-19, 22, 23, 25-27, 52 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cutler.

Cutler (Fig. 1) discloses a transmission line structure (i.e. E-plane waveguide) for transforming a point source in a first waveguide part to a line source in a second waveguide part comprising: a first parallel plate waveguide defined by parallel waveguide wall (39) and lower waveguide wall (40), each of which are flared, with one end thereof connected to a transmitting source (18) by a waveguide section (16) to define a point source thereat; a second parallel plate waveguide part defined by waveguide wall (39) and the upper waveguide wall (40), each of which is flared, and with one end thereof connected to a waveguide edge (43) to define a line source thereat. A curved slot is defined by the parabolic edge (41) of waveguide wall (39) and the opposite curved parabolic bend (14) forming an end of the waveguide structure between the

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upper and lower parallel waveguide walls (40). Note that such a slot is located in a symmetrical plane parallel to waveguide wall (39) and thus functions as a path controller for the electromagnetic wave propagating between the first waveguide part and the second waveguide part, by interconnecting the first and second waveguide parts and permitting propagation there through. Moreover, it should be noted that by virtue of the flared waveguide wall, and the curved parabolic bend of waveguide wall (40), the electromagnetic waves inherently have the necessary path lengths to optimally transform from the point source at the first waveguide to the line source at the second waveguide, as the electromagnetic wave propagates from the first to the second waveguide through the curved slot.

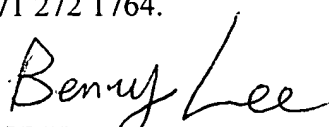
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Saygg discloses a waveguide comprised of plural flat multi-layered parallel plates and coupling slots.

Applicants' are advised that copies of the foreign patent documents cited in the Information Disclosure Statement (IDS) of 10 February 2005 have not been provided. Accordingly the IDS has not been considered at this time. The examiner requests, as a courtesy, that copies of the cited foreign patent documents be provided by applicants', such as to permit consideration of the IDS by the examiner.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

B. Lee


BENNY T. LEE
PRIMARY EXAMINER
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